

CLAIMS

1. A method of generating a list of offsets in time, phase, frequency, or
5 derivatives thereof, or their equivalents expressed as offsets in distance or derivatives
thereof, of a plurality of transmission source signals, received at a given location,
relative to a common reference, the method comprising

(a) acquiring data from one or more receivers, the positions of which may
be known or determined, the data from a receiver comprising offsets in time,
10 phase, frequency, or derivatives thereof, respectively of signals received from
the transmission sources relative to a reference source in each receiver or to
each other; and

(b) combining the acquired data and calculating the list of offsets relative
to the common reference.

15 2. A method of generating a list of offsets in time, phase, frequency, or
derivatives thereof, or their equivalents expressed as offsets in distance or derivatives
thereof, of a plurality of transmission source signals, received at a given location,
relative to a common reference, the method comprising

20 (a) acquiring data from one or more receivers, the positions of which may
be known or determined, the data from a receiver being representative of the
received signals;

(b) determining from the acquired data the offsets in time, phase,
frequency, or derivatives thereof, respectively of signals received from the
25 transmission sources relative to a reference source or to each other; and

(c) combining the offsets so determined and calculating the list of offsets
relative to the common reference.

3. A radio positioning method for determining the position of one or more
30 receivers the positions of which are unknown, which method includes the method of
claim 1 or claim 2.

4. A radio positioning method according to claim 3, wherein the common
reference comprises an external reference.

5. A radio positioning method according to claim 4, wherein the common reference comprises a GPS signal.

5 6. A radio positioning method according to any of claims 3 to 5, wherein the step of acquiring data from said one or more receivers includes instigating acquisition of said data from a common location.

7. A radio positioning method according to any of claims 3 to 5, wherein the step
10 of acquiring data from said one or more receivers includes instigating acquisition of said data from each said receiver at times determined by each said receiver.

8. Apparatus for generating a list of offsets in time, phase, frequency, or derivatives thereof, or their equivalents expressed as offsets in distance or derivatives thereof, of a plurality of transmission source signals, received at a given location,
15 relative to a common reference, the apparatus comprising

(a) means for acquiring data from one or more receivers, the positions of which may be known or determined, the data from a receiver comprising offsets in time, phase, frequency, or derivatives thereof, respectively of signals
20 received from the transmission sources relative to a reference source in each receiver or to each other; and

(b) means for combining the acquired data and calculating the list of offsets relative to the common reference.

25 9. Apparatus for generating a list of offsets in time, phase, frequency, or derivatives thereof, or their equivalents expressed as offsets in distance or derivatives thereof, of a plurality of transmission source signals, received at a given location, relative to a common reference, the apparatus comprising

(a) means for acquiring data from one or more receivers, the positions of which may be known or determined, the data from a receiver being
30 representative of the received signals;

(b) means for determining from the acquired data the offsets in time, phase, frequency, or derivatives thereof, respectively of signals received from the transmission sources relative to a reference source or to each other; and

(c) means for combining the offsets so determined and calculating the list of offsets relative to the common reference.

10. A radio positioning system including apparatus according to claim 8 or to
5 claim 9.

11. A radio positioning system according to claim 10, wherein the common reference comprises a reference external to said receivers.

10 12. A radio positioning system according to claim 11, wherein the common reference comprises a GPS signal.

13. A radio positioning system according to any of claims 10 to 12, wherein the means for acquiring data from said one or more receivers includes a computer system
15 arranged to instigate the transfer of said data from said one or more receivers to said computer system at times determined by said computer system.

14. A radio positioning system according to any of claims 10 to 13, wherein the means for acquiring data from said one or more receivers includes a computer system,
20 and including means for instigating said acquisition of data from each said receiver at times determined by each said receiver.

15. A digital telephone network, including a radio positioning system according to any of claims 10 to 14.